
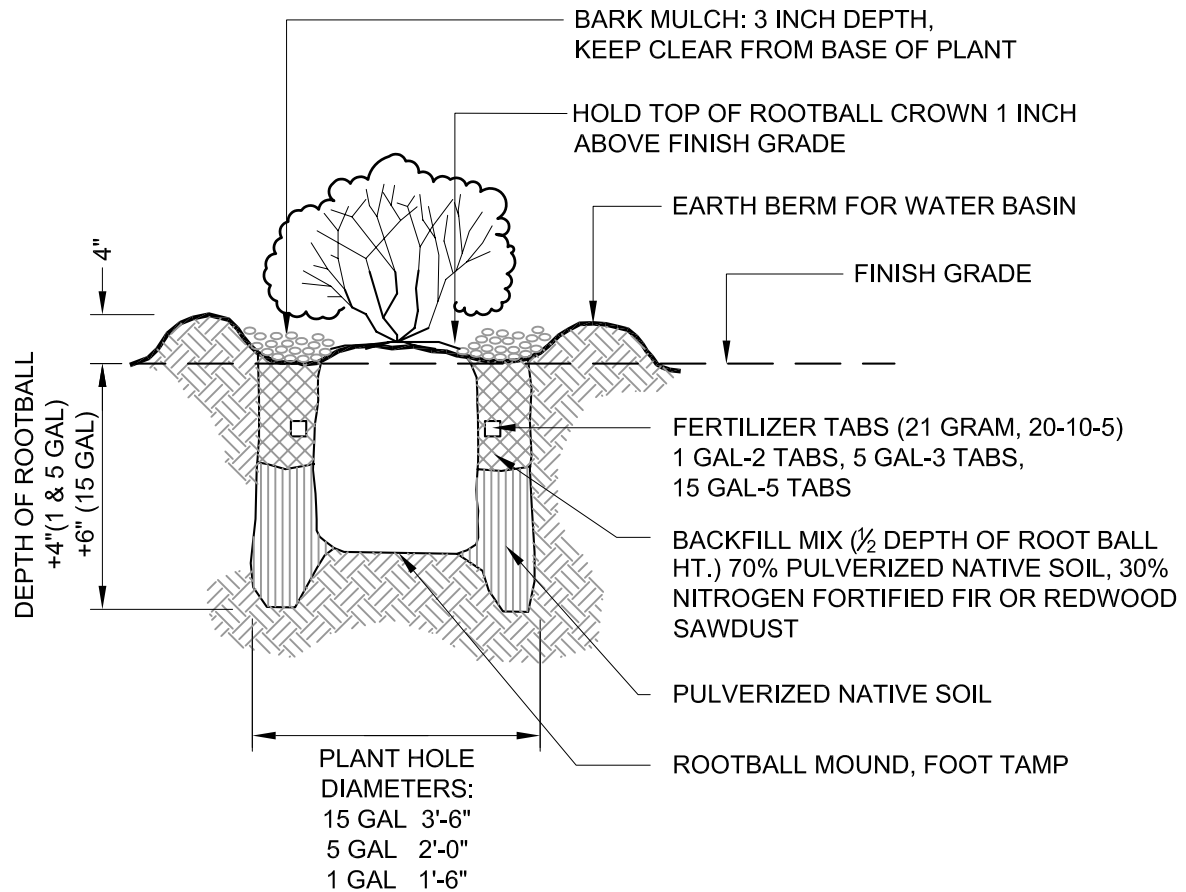


LANDSCAPE STANDARD DETAILS (LSD) FOR CITY PROJECTS AND RIGHT-OF-WAY

T a b l e o f C o n t e n t s

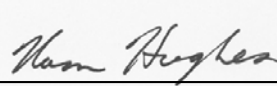
<u>DETAIL #</u>	<u>TITLE</u>
LSD-1	TREE PLANTING AND STAKING
LSD-2	TREE PLANTING WITH TREE GRATE
LSD-3	SHRUB AND GROUNDCOVER PLANTING
LSD-4	SHRUB AND GROUNDCOVER LAYOUT
LSD-5	STREET TREE CLEARANCES
LSD-6	TREE CLEARANCES
LSD-7	MEDIAN COBBLE PAVING
LSD-8	MAINTENANCE BAND
LSD-9	TREE PROTECTION FENCING
LSD-10	TEMPORARY TRUNK WRAP PROTECTION DETAIL
LSD-11	VEGETATED AND GRASSY BIOSWALE WITH TREES
LSD-12	TREE AND SHRUB PLANTING ON SLOPE
LSD-13	TREE PLANTING GUIDE (LIST)
LSD-14	IRRIGATION MATERIALS
LSD-15	IRRIGATION CONTROLLER CABINET
LSD-16	BACKFLOW PREVENTOR UNIT
LSD-17	BACKFLOW PREVENTOR UNIT CAGE
LSD-18	IRRIGATION TRENCH
LSD-19	QUICK COUPLING VALVE BOX
LSD-20	IRRIGATION WIRE SPLICE
LSD-21	ROTARY POP-UP SPRAY
LSD-22	IRRIGATION GATE VALVE
LSD-23	REMOTE CONTROL VALVE W/ GATE VALVE
LSD-24	MASTER VALVE AND FLOW SENSOR
LSD-25	PRESSURE REDUCTION VALVE
LSD-26	IRRIGATION WYE STRAINER
LSD-27	PERFORATED SUBDRAIN UNDER BIOSWALE WITH TREES

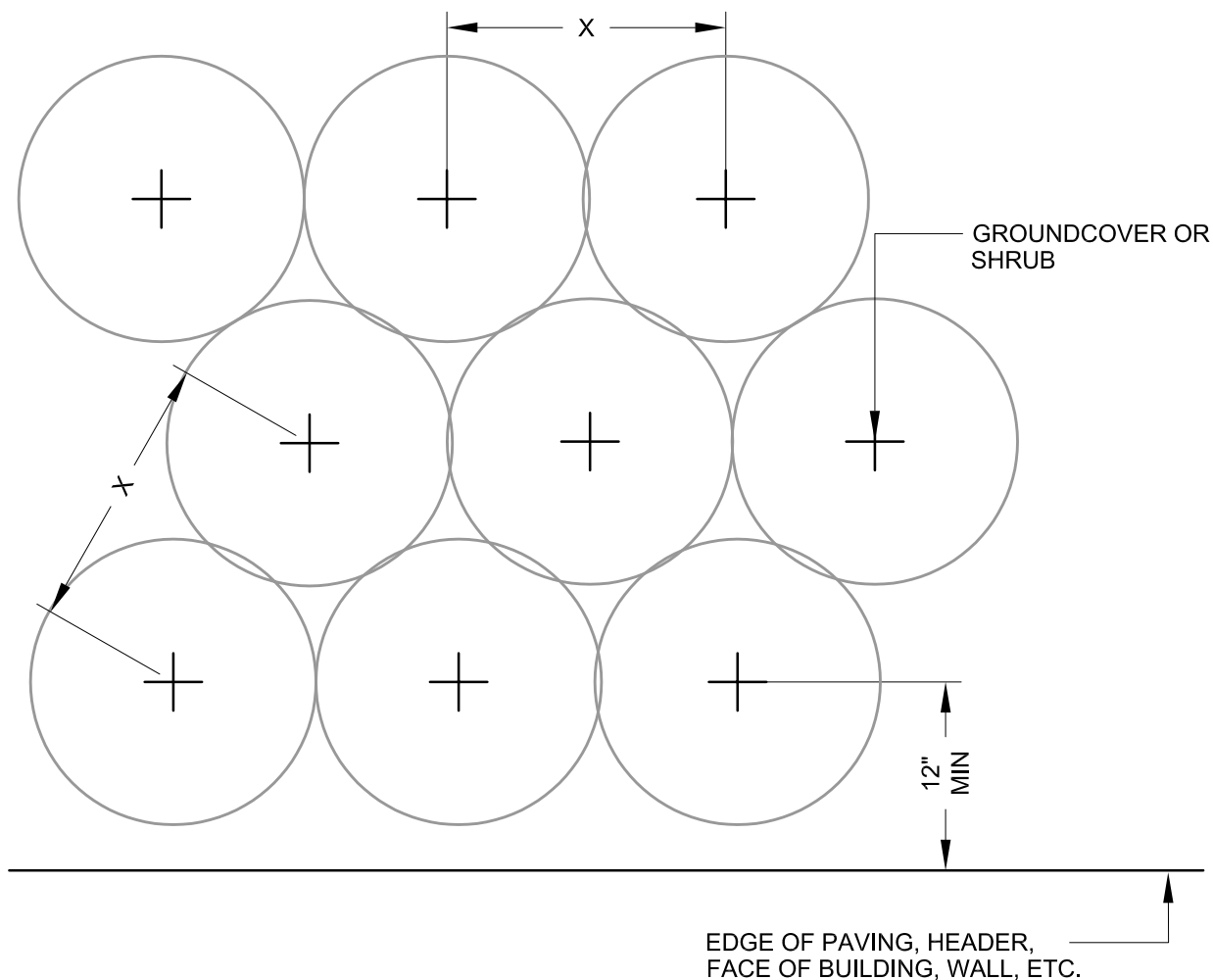
			<h1 style="text-align: center;">CITY OF FREMONT</h1> <h2 style="text-align: center;">STANDARD DETAILS</h2> <hr/> <h2 style="text-align: center;">CITY STANDARD TREE PLANTING</h2> <h2 style="text-align: center;">WITH TREE GRATE</h2>				DATE APPROVED BY CITY COUNCIL 04/11/06	
							RESOLUTION NO. 2006-31	
							 CITY ENGINEER	
NO.	REVISED	DATE						
REVISIONS								
FILE NO. LSD-2.DWG		SCALE 3/4" = 1'-0"		DRAWN PM/MM	CHECKED RER	DATE NOV. 2005	DWG NO. LSD-2	
							2 of 27	



NOTE:

1. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
2. ALL PLANTING AREAS TO BE TREATED WITH PRE-EMERGENT.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>SHRUB AND GROUNDCOVER</div> <div>PLANTING</div>				DATE APPROVED BY CITY COUNCIL	
							04/11/06	
							RESOLUTION NO. 2006-31	
							<div></div> <div>CITY ENGINEER</div>	
NO.	REVISED	DATE						
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FILE NO.		SCALE		DRAWN	CHECKED	DATE	DWG NO.	
LSD-03.DWG		3/4" = 1'-0"		PM/MM/AK	RER	NOV. 2005	LSD-03	
							3 of 27	



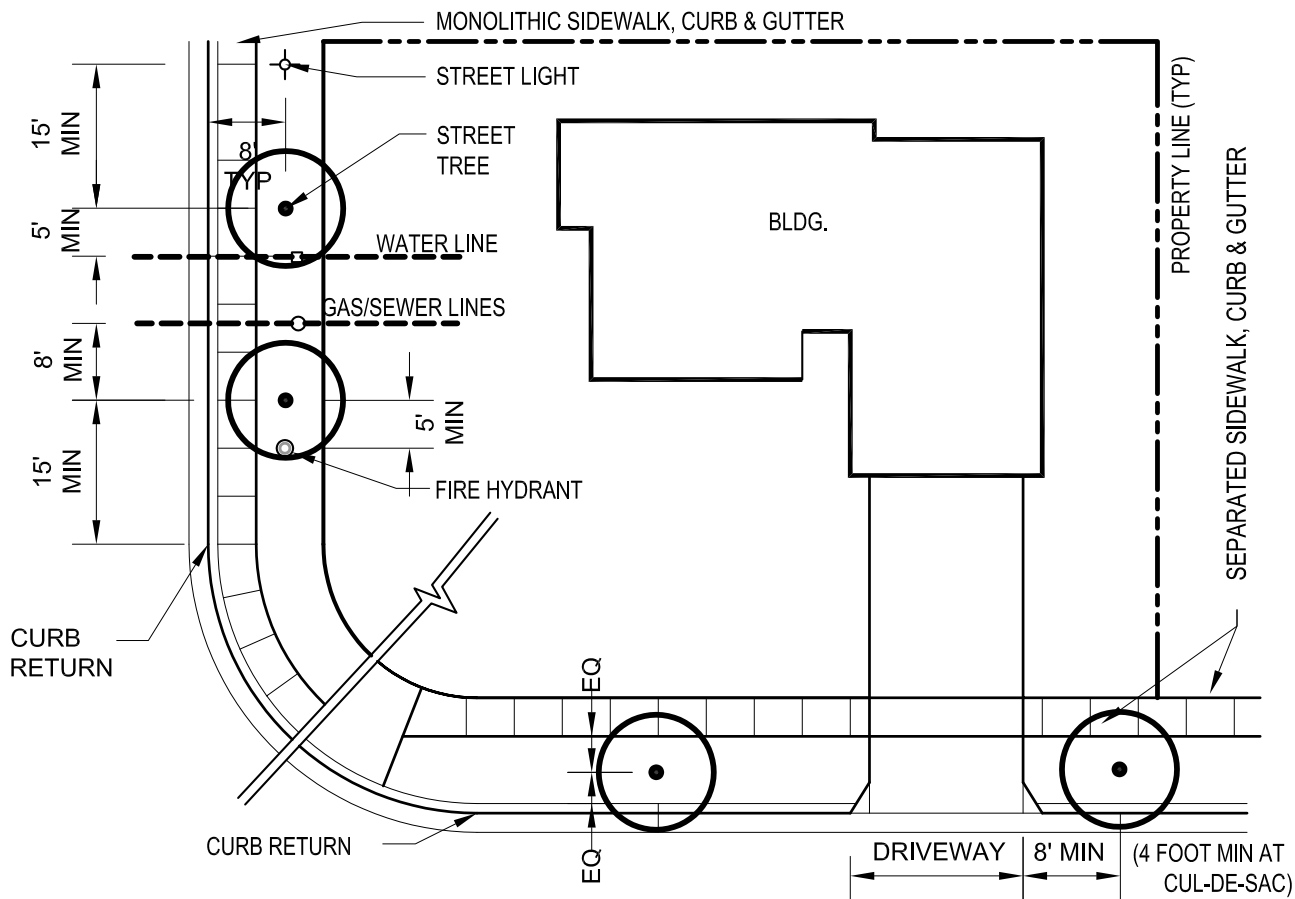
NOTE:

1. 'X' IS GROUNDCOVER AND SHRUB SPACING AS PER LANDSCAPE PLAN, PLANT LIST, AND LEGEND.
2. KEEP MULCH CLEAR OF PLANT BASE (SEE LSD-03 & LSD-12)
3. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
4. ALL PLANTING AREAS TO BE TREATED WITH PRE-EMERGENT.

<h2 style="margin: 0;">CITY OF FREMONT</h2> <h3 style="margin: 0;">STANDARD DETAILS</h3> <h3 style="margin: 0;">CITY STANDARD</h3> <h3 style="margin: 0;">SHRUB AND GROUNDCOVER</h3> <h3 style="margin: 0;">PLANTING LAYOUT</h3>			DATE APPROVED BY CITY COUNCIL										
			04/11/06										
			RESOLUTION NO. 2006-31										
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FILE NO. LSD-4.DWG		SCALE 1" = 1'-0"		DRAWN PM/MM		CHECKED RER		DATE NOV. 2005		DWG NO. LSD-4		4 of 27	

MINIMUM STREET TREE CLEARANCES

1. STREET TREES SHALL BE LOCATED 8 FEET (MIN) FROM SANITARY SEWER, GAS, AND STORMWATER LINES.
2. STREET TREES SHALL BE LOCATED 5 FEET (MIN) FROM WATER, TELEPHONE AND ELECTRICAL LINES.
3. STREET TREES SHALL BE LOCATED 5 FEET (MIN) FROM FIRE HYDRANTS.
4. STREET TREES SHALL BE LOCATED 15 FEET (MIN) FROM STREET LIGHTS.
5. STREET TREES SHALL BE LOCATED 8 FEET (MIN) FROM DRIVEWAYS AND 4 FEET (MIN) AT CUL-DE-SAC.
6. STREET TREES SHALL BE GENERALLY 35 FEET ON CENTER.
7. STREET TREES SHALL BE LOCATED 15 FEET (MIN) FROM CURB RETURNS.
8. MINIMUM ONE TREE PER LOT REQUIRED, AND TWO PER CORNER LOT.
9. IF LOT WIDTH EXCEEDS 60 FEET AT THE STREET, ONE TREE IS REQUIRED EVERY 35 FEET OF STREET, EXCLUDING LENGTH OF CURB RETURN.



NOTE:
CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL

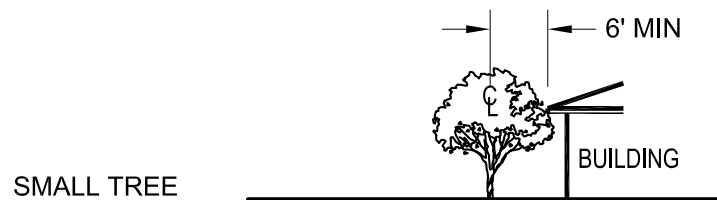
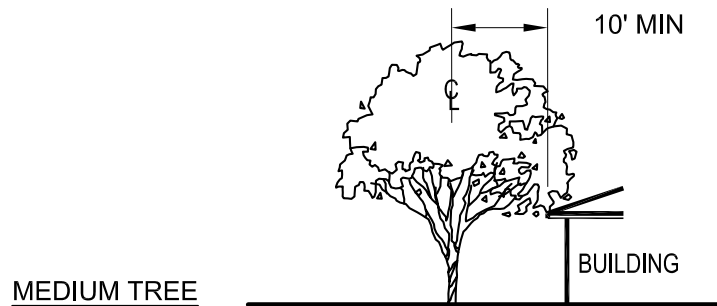
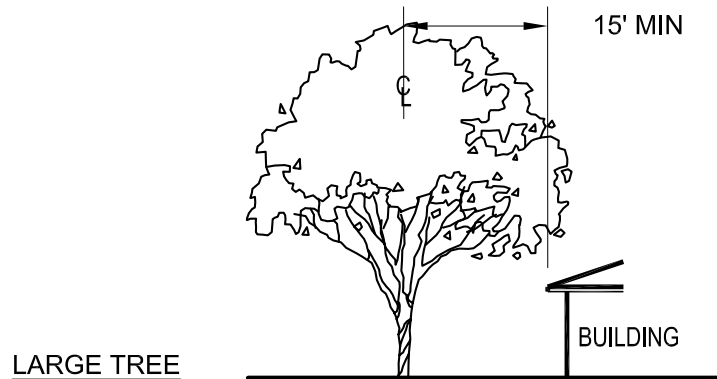
			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>STREET TREE CLEARANCES</div>				DATE APPROVED BY CITY COUNCIL	
							04/11/06	
							RESOLUTION NO. 2006-31	
							<div>Nam Hughes</div>	
NO.	REVISED	DATE					CITY ENGINEER	
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FILE NO.		SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-5.DWG		1" = 20'-0"	PM/MM	RER	NOV. 2005	LSD-5		
						5 of 27		

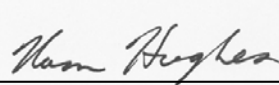
MINIMUM TREE CLEARANCES FROM BUILDINGS

BRANCHES FROM MATURE TREES MAY NOT OVERHANG BUILDINGS AND ROOFS. ADEQUATE SPACE TO PLANT TREES ADJACENT TO BUILDINGS OR OTHER BUILT FEATURES MUST BE PROVIDED IN THE FOLLOWING MINIMUM WAYS:

1. SMALL TREES (TO 15 FEET TALL AT MATURITY) NO CLOSER THAN 6 FEET FROM BUILDING OR 2 FEET* FROM PAVING, CURBS, OR WALLS WITH A MINIMUM PLANTING AREA 5 FEET WIDE.
2. MEDIUM TREES (TO 35 FEET TALL AT MATURITY) NO CLOSER THAN 10 FEET FROM BUILDING OR 3 FEET* FROM PAVING, CURBS, OR WALLS WITH A MINIMUM PLANTING AREA 6 FEET WIDE.
3. LARGE TREES (ABOVE 35 FEET TALL AT MATURITY) NO CLOSER THAN 15 FEET FROM BUILDING OR 3 FEET* FROM PAVING, CURBS, OR WALLS WITH A MINIMUM PLANTING AREA 6 FEET WIDE, PREFERABLY 8 FEET WIDE.
4. WHEN ROOF EAVES OR BUILDING PROJECTIONS EXTEND BEYOND FACE OF BUILDING, CLEARANCE SHALL BE MEASURED FROM EDGE OF PROJECTION TO CENTERLINE OF TREE.
5. UPPER STORY OVERHANGS AND BUILDING FEATURES MAY NOT EXTEND WITHIN MINIMUM CLEARANCE EXCEPT FOR MINOR ROOF EAVES.

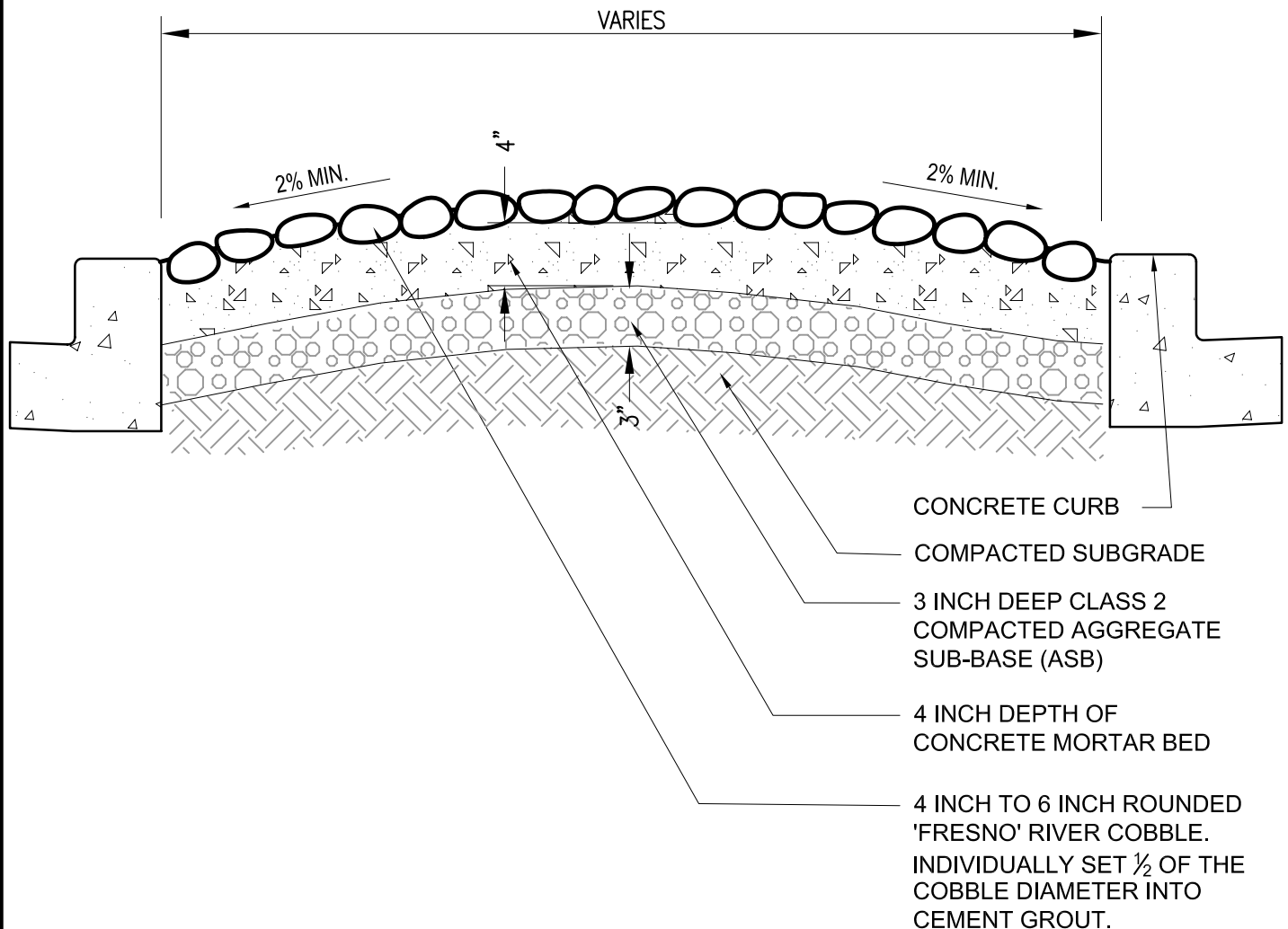
* REFER TO CITY STANDARD DETAIL LSD-05 FOR REQUIRED SPACING FROM UTILITIES.




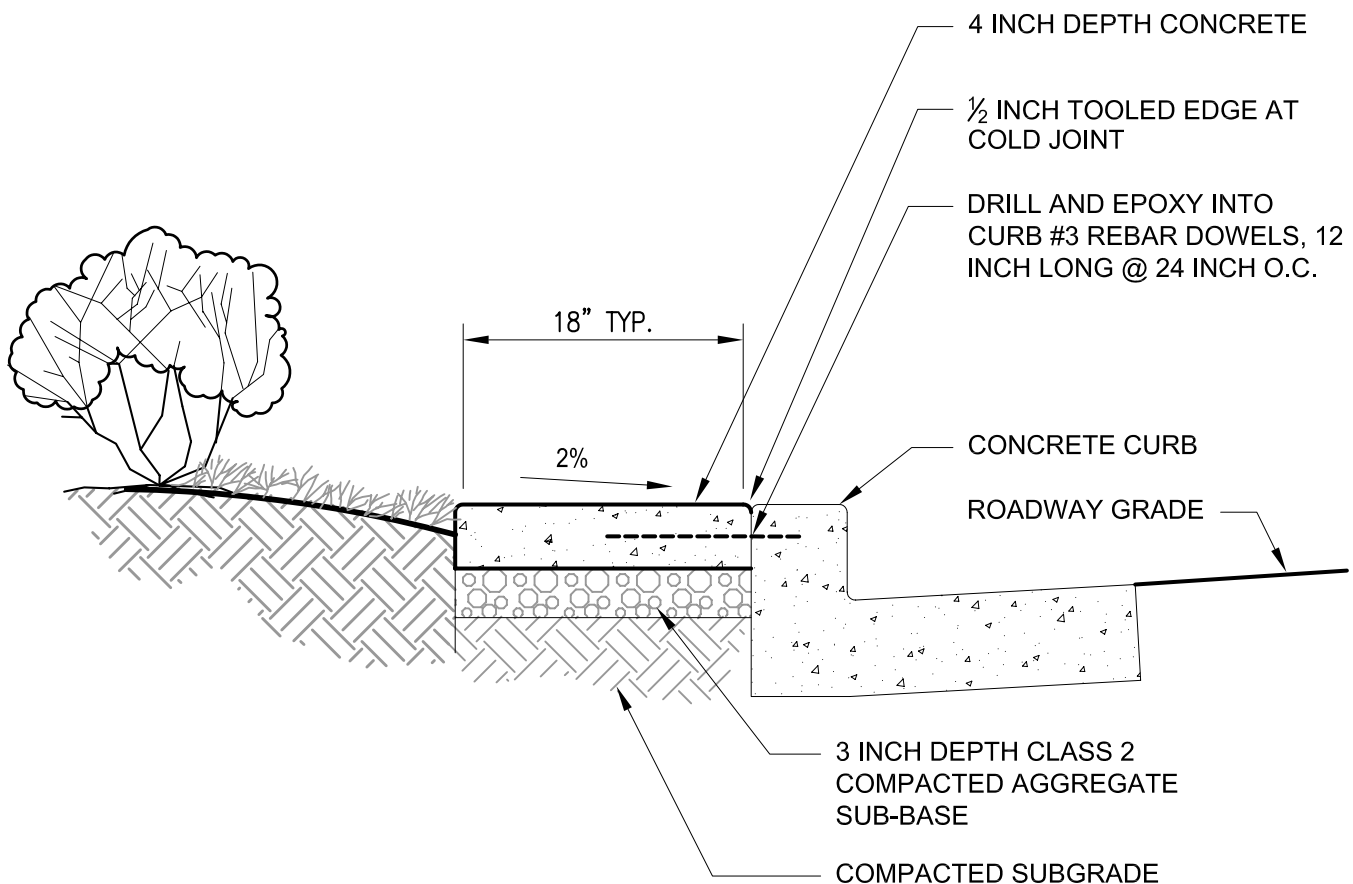
			CITY OF FREMONT STANDARD DETAILS CITY STANDARD TREE CLEARANCES				DATE APPROVED BY CITY COUNCIL 04/11/06		
							RESOLUTION NO. 2006-31		
									
NO.	REVISED	DATE					CITY ENGINEER		
REVISIONS									
FILE NO. LSD-6.DWG		SCALE 1"=20'-0"		DRAWN MQ/MM	CHECKED RER	DATE NOV. 2005	DWG NO. LSD-6		6 of 27

NOTES:

1. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
2. CROWN TO BE ROUNDED WITH NO SHARP GRADE BREAKS.
3. MINIMIZE VISIBLE EXPOSED GROUT AT COBBLE JOINTS.
4. SURFACE OF COBBLE FIELD TO BE SMOOTH AND FLAT TO GRADE WITHOUT VARIATION IN HEIGHT OF INDIVIDUAL COBBLES.
5. COBBLES WITH BREAKS OR FRACTURES ARE NOT ALLOWED.
6. ROCK SHALL BE 'SATURATED SURFACE MOIST' (SSM) PRIOR TO PLACEMENT.
7. CONCRETE MORTAR BED SHALL HAVE A CEMENT RATIO PER CUBIC YARD OF CONCRETE OF NOT LESS THAN 564 POUNDS; SLUMP MAX. OF 3"; AGGREGATE SIZE $\frac{1}{4}$ " MAXIMUM.
8. INTEGRAL COLOR ADMIXTURE: CHROMIX, ADOBE TAN, #C-21 BY L.M. SCOFIELD.



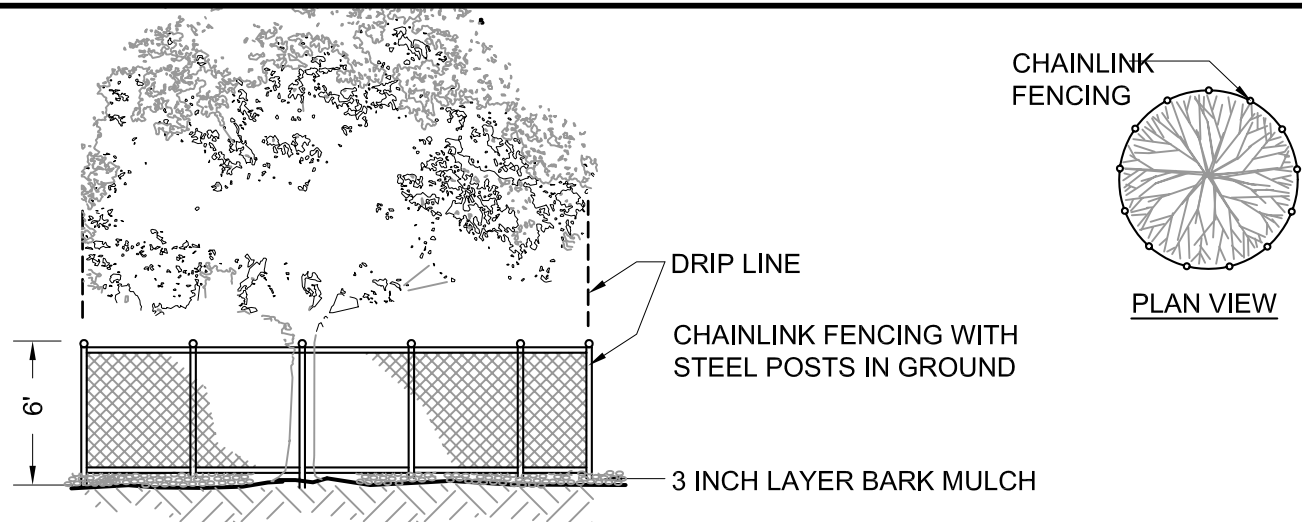
			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>MEDIAN PAVING COBBLE</div>				DATE APPROVED BY CITY COUNCIL	
							04/11/06	
							RESOLUTION NO. 2006-31	
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REVISIONS								
FILE NO.		SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-7.DWG		1" = 1'-0"	PM/MM	RER	NOV. 2005	LSD-7		
						7 of 27		



NOTE:

1. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
2. ON MEDIANS LESS THAN 14 FEET WIDE, REPLACE MAINTENANCE BAND WITH 18 INCH MINIMUM WIDTH PLANTING OF WALKABLE GROUNDCOVER.
3. INSTALL 'DEEP JOINTS' TO MATCH CURB & GUTTER DEEP JOINTS. SEE ENGINEERING STANDARD DETAIL 8 FOR DEFINITION OF 'DEEP JOINT.'

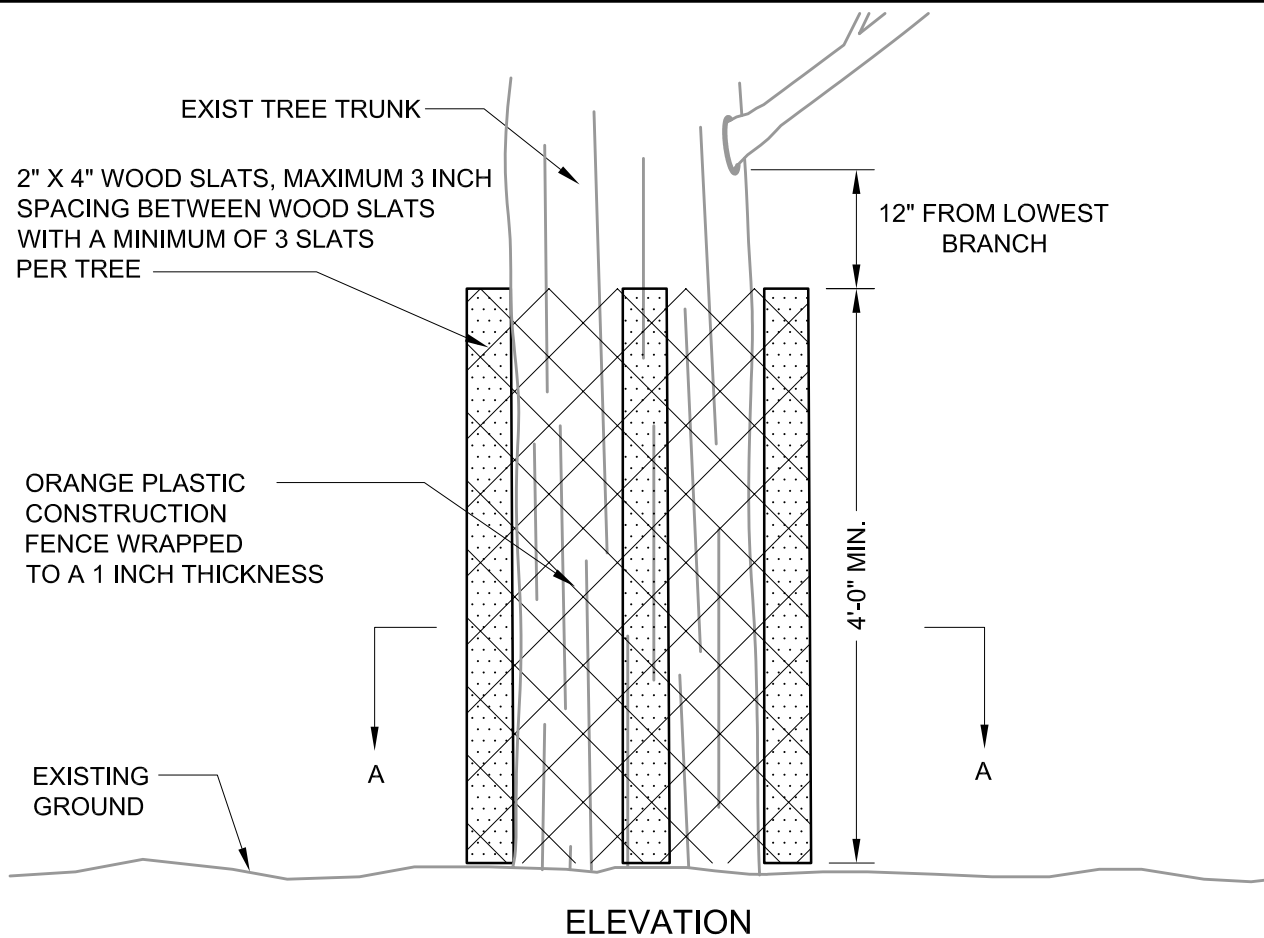
<h2 style="margin: 0;">CITY OF FREMONT</h2> <h3 style="margin: 0;">STANDARD DETAILS</h3> <h3 style="margin: 0;">CITY STANDARD</h3> <h3 style="margin: 0;">MAINTENANCE BAND</h3>			DATE APPROVED BY CITY COUNCIL <div style="text-align: right;">04/11/06</div>				
			RESOLUTION NO. 2006-31				
			CITY ENGINEER				
NO.	REVISED	DATE	REVISIONS				
FILE NO. LSD-8.DWG		SCALE 1" = 1'-0"	DRAWN PM/MM	CHECKED RER	DATE NOV. 2005	DWG NO. LSD-8	8 of 27



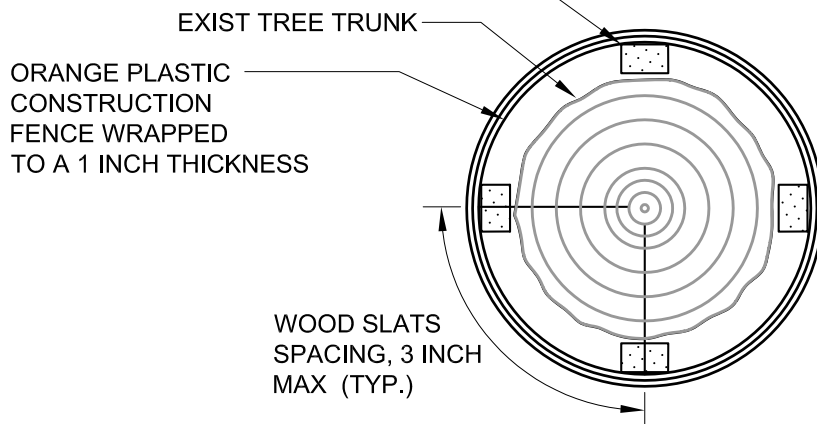
TREE PRESERVATION NOTES

1. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
2. TREE PRESERVATION MEASURES MUST BE IN PLACE BEFORE CONSTRUCTION, DEMOLITION AND/OR GRADING ACTIVITIES COMMENCE. CITY OF FREMONT WILL STOP CONSTRUCTION IF TREE PRESERVATION MEASURES ARE NOT IN PLACE AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
3. TREES CALLED OUT FOR PRESERVATION SHALL BE FENCED AT THE DRIPLINE. FENCING MAY OCCUR AT THE COMBINED DRIPLINES OF GROVES OF TREES. PLACE 3 INCH BARK MULCH BENEATH DRIPLINES OF TREES TO BE PRESERVED.
4. FENCING SHALL BE 6 FEET TALL CHAIN LINK FENCING WITH STEEL POSTS EMBEDDED IN THE GROUND.
5. NO GRADING SHALL OCCUR WITHIN THE DRIPLINES/FENCED AREA OF EXISTING TREES.
6. NO CONSTRUCTION MATERIALS OR CONSTRUCTION VEHICLES MAY BE STORED WITHIN THE DRIPLINES/FENCED AREA OF EXISTING TREES.
7. CONSTRUCTION VEHICLES OR MACHINERY MAY NOT PASS BETWEEN TWO OR MORE EXISTING TREES IDENTIFIED FOR PRESERVATION IF THEIR CANOPIES ARE WITHIN 10 FEET OF TOUCHING. ADDITIONAL FENCING MAY BE REQUIRED BY THE CITY AS NEEDED.
8. THE CONTRACTOR IS REQUIRED TO HAVE AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), APPROVED BY THE CITY, ON SITE IF SITE CONSTRUCTION EFFORTS REQUIRE REMOVAL OF EXISTING ROOTS OR BRANCH PRUNING. ROOTS APPROVED FOR CUTTING MUST BE CUT CLEANLY WITH A SAW. RIPPING OR SHREADING ROOTS SUBJECT TO FINE/PENALTY.
9. UNAUTHORIZED TREE REMOVAL IS SUBJECT TO REPLACEMENT EQUAL TO THE APPRAISED VALUE OF THE TREE LOST PER FMC 4-5108.
10. THE CONTRACTOR IS REQUIRED TO WATER, FERTILIZE AND ATTEND TO OTHER MAINTENANCE NEEDS OF EXISTING TREES TO MAINTAIN HEALTHY GROWTH THROUGHOUT THE CONSTRUCTION PERIOD. AN EARTH BERM MEASURING MINIMUM 6 FEET IN DIAMETER, AND 6 INCHES IN HEIGHT SHALL BE CONSTRUCTED AT THE BASE OF EACH TREE TO FUNCTION AS A TEMPORARY WATERING BASIN DURING THE CONSTRUCTION PERIOD. TREES SHALL BE WATERED ACCORDING TO WEATHER AND TREE SPECIES REQUIREMENTS.
11. IF TREES ARE BEING RELOCATED: RELOCATION OF EXISTING TREES SHALL OCCUR UNDER THE OBSERVATION AND DIRECTION OF A CERTIFIED ARBORIST APPROVED BY THE CITY OF FREMONT.
12. TRUNK WRAP PROTECTION SHALL OCCUR FOR TREES SITUATED IN SMALL TREE WELLS OR SIDEWALK PLANTERS. THIS FORM OF PROTECTION WILL BE ALLOWED BY APPROVAL FROM SENIOR LANDSCAPE

<h2 style="margin: 0;">CITY OF FREMONT</h2> <h3 style="margin: 0;">STANDARD DETAILS</h3> <h3 style="margin: 0;">CITY STANDARD</h3> <h3 style="margin: 0;">TREE PROTECTION FENCING</h3>			DATE APPROVED BY CITY COUNCIL 04/11/06			
			RESOLUTION NO. 2006-31			
			CITY ENGINEER			
NO.	REVISED	DATE				
REVISIONS						
FILE NO. LSD-9.DWG	SCALE 1/8" = 1'-0"	DRAWN PM/MM	CHECKED RER	DATE NOV. 2005	DWG NO. LSD-9	9 of 27




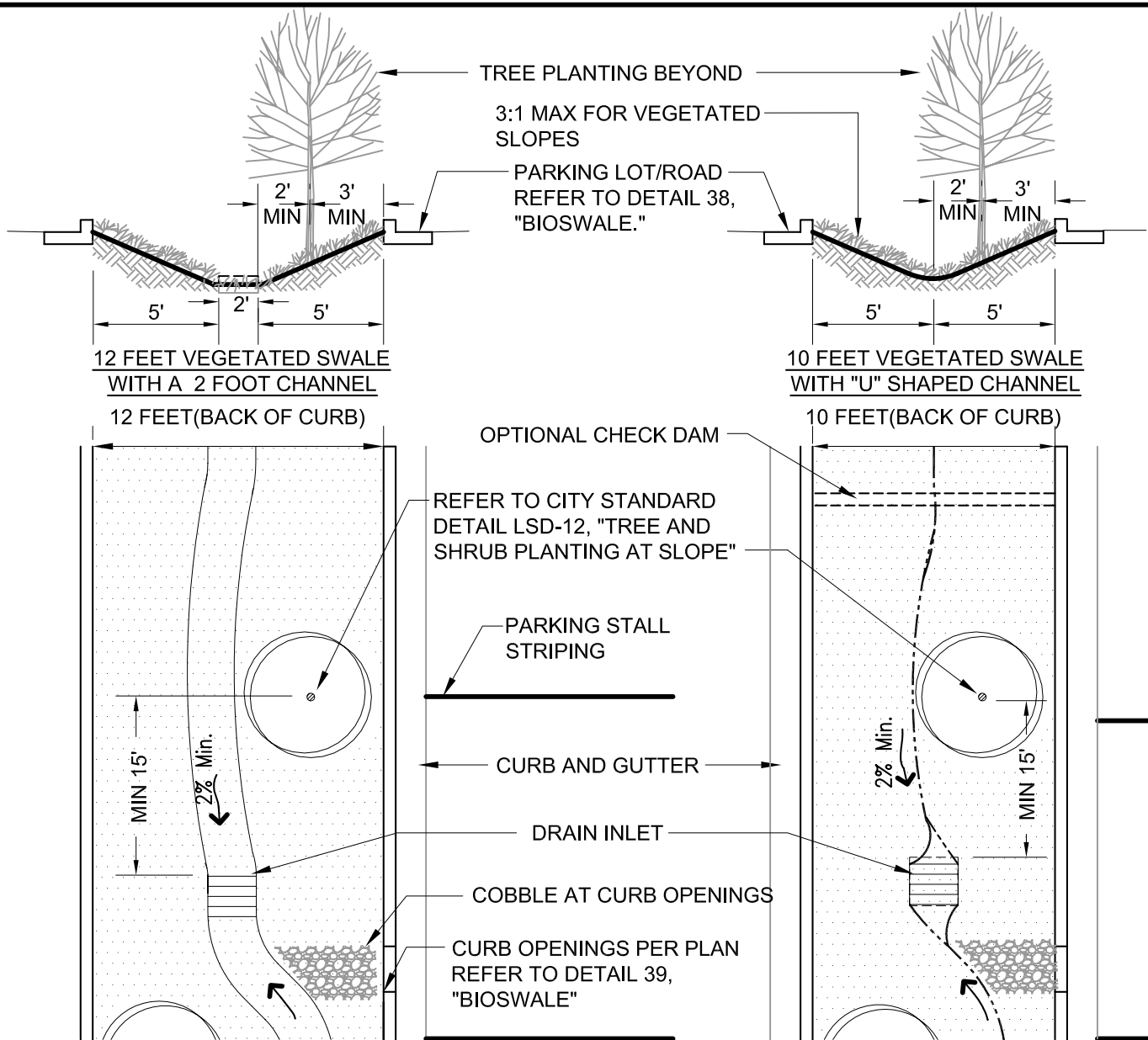
2" X 4" WOOD SLATS, MAXIMUM 3 INCH SPACING BETWEEN WOOD SLATS WITH A MINIMUM OF 3 SLATS PER TREE



NOTE:

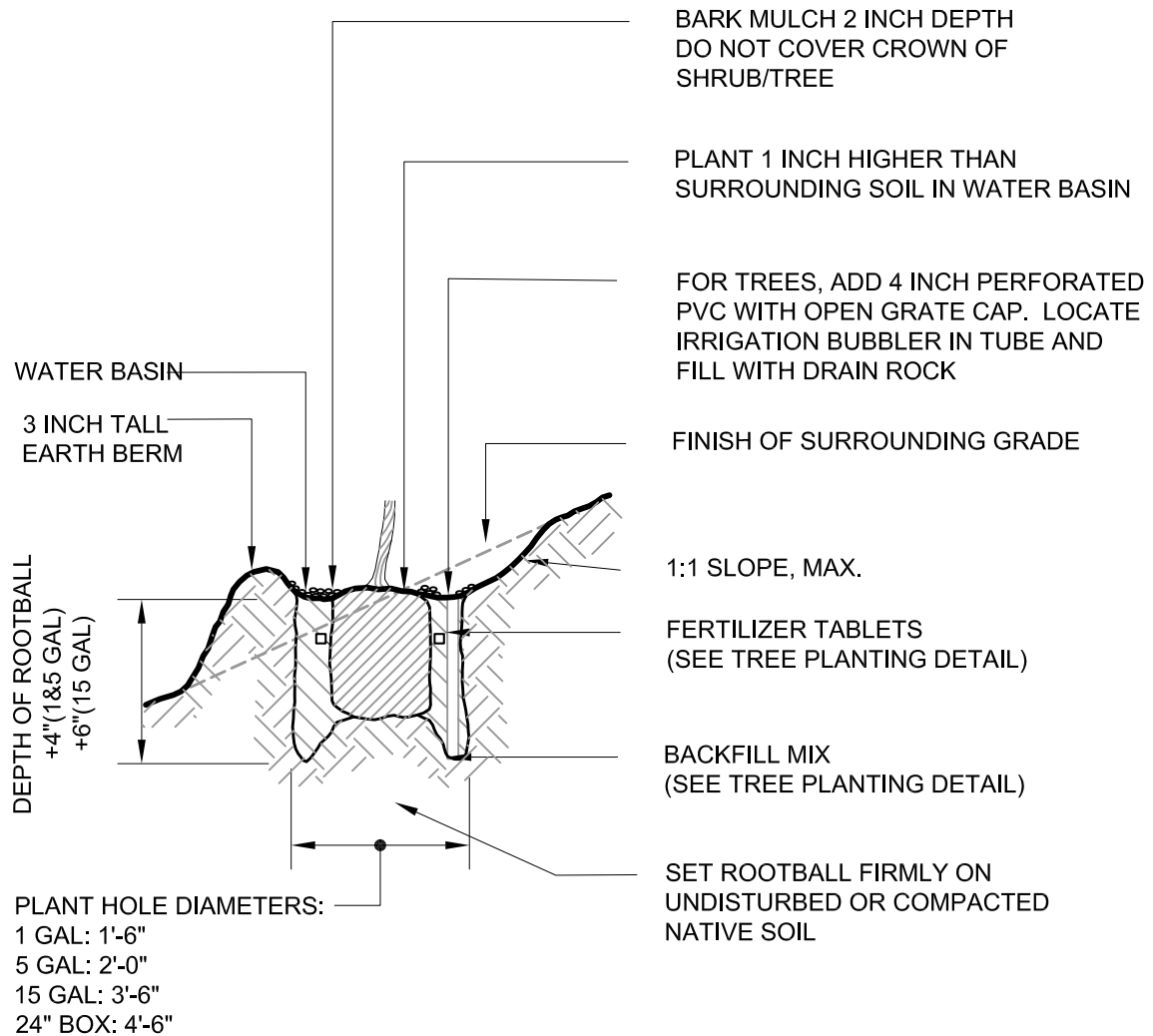
1. WRAP ORANGE PLASTIC CONSTRUCTION FENCE ON TOP OF WOOD SLATS WITH AN OVERLAP OF 12 INCHES AND TIE WITH WIRE. SEE SECTION BELOW.
2. TEMPORARY TRUNK WRAP PROTECTION WILL BE ALLOWED ONLY BY APPROVAL FROM THE SENIOR LANDSCAPE ARCHITECT
3. DAMAGE TO BRANCHES & ROOTS SUBJECT TO FINE UP TO APPRAISED VALUE OF THE TREE, PER CITY TREE PRESERVATION ORDINANCE (FMC 4-5100).
4. REFER TO LSD-9 FOR ADDITIONAL TREE PRESERVATION REQUIREMENTS APPLICABLE TO THIS DETAIL.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>TEMPORARY TRUNK WRAP</div> <div>PROTECTION</div>				DATE APPROVED BY CITY COUNCIL				
							04/11/06				
							RESOLUTION NO. 2006-31				
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NO.	REVISED	DATE					CITY ENGINEER				
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LSD-10.DWG		3/4"=1'-0"		MM		RER		DEC 2005		LSD-10	
										10 of 27	



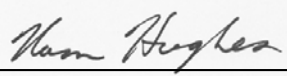
1. TREES MUST BE PLANTED OUT OF THE SWALE BOTTOM (CHANNEL) AND AT LEAST 8 INCHES HIGHER THAN ADJACENT CHANNEL BOTTOM OR DOWNSTREAM CHECK DAM.
2. UNLESS OTHERWISE APPROVED, PLANT SPECIES MUST COMPLY WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION (BASMAA) DESIGN GUIDELINES AND OTHER CITY REQUIREMENTS.
3. WHERE TREES ARE NOT REQUIRED OR WHERE TREES ARE PLANTED IN PARKING LOT ISLANDS OUTSIDE OF SWALES, WIDTH OF SWALE MAY BE LESS THAN 10 FEET PER ENGINEERING REVIEW AND APPROVAL.
4. INSTALL COBBLES OR EROSION CONTROL MEASURES AT CURB OPENINGS AS REQUIRED.
5. GRASSES OR GROUNDCOVER PLANTS MUST HAVE A MINIMUM DESIGN HEIGHT OF 6 INCHES.
6. TREES SHALL BE LOCATED MINIMUM 15 FEET CLEAR FROM INLETS, ALIGNED WITH STALL STRIPING, AND NOT ADJACENT TO CURB OPENINGS (LOCATE TREES AND CURB OPENINGS AT ALTERNATE STALL STRIPES).
7. ON VEGETATED SWALES, INCLUDE A SINGLE STRIP OF RED FESCUE SOD ALONG THE FLOW LINE TO PROTECT FOR EROSION DURING PLANT ESTABLISHMENT.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>VEGETATED AND GRASSY</div> <div>BIOSWALE WITH TREES</div>					DATE APPROVED BY CITY COUNCIL			
								04/11/06			
								RESOLUTION NO. 2006-31			
								<div></div>			
								CITY ENGINEER			
NO.	REVISED	DATE						<div>Nam Hughes</div>			
REVISIONS								CITY ENGINEER			
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LSD-11.DWG		3/16" = 1'-0"		AK/MM/PM		RER		NOV. 2005		LSD-11	
										11 of 27	



NOTES:

1. OMIT WATER BASIN AND BARK MULCH IN TURF AREAS. CLEAR 18 INCH RADIUS OF TURF AROUND TREE TRUNK.
2. THE CURRENT STANDARD DETAIL AT THE CITY ENGINEERING DIVISION SHALL PREVAIL.
3. SEE TREE PLANTING DETAIL FOR STAKING INFO.
4. THIS DETAIL TO BE REFERENCED, PER CITY STANDARD DETAIL LSD-11, FOR TREE PLANTING IN A VEGETATED BIOSWALE.

			CITY OF FREMONT STANDARD DETAILS CITY STANDARD TREE AND SHRUB PLANTING AT SLOPE			DATE APPROVED BY CITY COUNCIL 04/11/06	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
NO.	REVISED	DATE	REVISIONS			FILE NO.	SCALE
						LSD-12.DWG	1/4" = 1'-0"
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						NOV. 2005	
						DWG NO.	
						LSD-12	12 of 27